

## Lab Program 9

For this and all future labs, I strongly encourage you to begin your programs with a comment header similar to

the following:

```
/*
```

```
Programmer: First & Last Name
```

```
Class: CSCE 1030 Lab
```

```
Date: Today's Date
```

```
Assignment: Lab 9
```

```
cspXX.csci.unt.edu
```

```
*/
```

You are welcome to include more information if you like.

This week's assignment we will continue working with control structures, but specifically nested loops. Make sure to use at least one **for loop** in this assignment, avoid “**magic numbers**” when possible, and have clean and clear **indentions**. Name your file accordingly: **LastnameProg9.c**.

The program should:

1. Prompt the user for a value that is between 1 and 20.
2. Prompt the user for another value that is between 1 and 20.
3. If either of the values are out of range, inform the user, and restart.
4. If the values are valid, build the corresponding powers table.

Example:

```
Please enter a value between 1 and 20
```

```
18
```

```
Please enter a value between 1 and 20
```

```
4
```

```
1:      1      1      1      1
2:      2      4      8     16
3:      3      9     27     81
```

4:	4	16	64	256
5:	5	25	125	625
6:	6	36	216	1296
7:	7	49	343	2401
8:	8	64	512	4096
9:	9	81	729	6561
10:	10	100	1000	10000
11:	11	121	1331	14641
12:	12	144	1728	20736
13:	13	169	2197	28561
14:	14	196	2744	38416
15:	15	225	3375	50625
16:	16	256	4096	65536
17:	17	289	4913	83521
18:	18	324	5832	104976

**OR**

Please enter a value between 1 and 20  
-3

Please enter a value between 1 and 20  
4

One of your loop bounds were invalid  
Please try again

Please enter a value between 1 and 20  
4

Please enter a value between 1 and 20  
-3

One of your loop bounds were invalid  
Please try again

Please enter a value between 1 and 20  
7

Please enter a value between 1 and 20

7

1:	1	1	1	1	1	1	1
2:	2	4	8	16	32	64	128
3:	3	9	27	81	243	729	2187
4:	4	16	64	256	1024	4096	16384
5:	5	25	125	625	3125	15625	78125
6:	6	36	216	1296	7776	46656	279936
7:	7	49	343	2401	16807	117649	823543